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## ABSTRACT

The major purpose of this paper was to report on several innovations in the promotion of affective skill development in the school setting. Three studies were carried out in urban, parochial schools and were analyzed together. A rural school study was discussed separately. The major strategies instrumental in each of the four studies included: (1) feedback through test analysis, teacher attention, parental support; (2) social contact exercise, teacher attention, videofeedback; (3) existential group work, teacher attention; and (4) social contact exercise, process learning. Three analyses (analysis of variance, aptitude x treatment interaction, gain scores) were used to interpret the results of the four studies. A lower disruptive score or fewer negative teacher ratings were considered desirable directions of change in student behavior. Generally, for boys and girls, the comparisons of absolute gains showed that Group I and III strategies were about equally effective, but that Group II strategies lowered the selected scale scores. Suggestions for further research are discussed. (Author/PC)

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RECENT EFFORTS IN PLANNED INTERVENTIONS

FOR

AFFECTIVE EDUCATION

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U.S. DEPARTMENT OF HEALTH,  
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For many years counselors and teachers worked with students by "teaching" them to be aware of their feelings and to be sensitive to others. The impact of Carl Rogers and his students has been profound in this regard. More recently, a shift in emphasis has occurred. The shift has been toward the development of social-affective skills. In a sense this recent change was heralded by Thoresen's (1973) seminal arguments that we should go beyond a traditional humanist versus behaviorist debate and enter an era of behavioral humanism. Indeed, we have entered that new era with enthusiasm!

#### Affective Training Programs

New programs for counselor, teacher, and student training in affective skill development are becoming available. Presently, counselor educators and psychologists such as George Gazda and Robert Carkhuff have created training programs (e.g., Carkhuff, 1972; Gazda, Asbury, Balzer, Childers, Desselle & Walters 1973) which prepare counselors and teachers to use a wide range of affective skills. Similarly, affective-curricular packages such as "The Valuing Approach to Career Education" (Educational Achievement Corporation, 1974), "Dimensions of Personality" (Pflaum/Standard, 1972), and "Developing Understanding of Self and Others - DUSO" (Dinkmeyer, 1972) have been produced for teaching affective skills to elementary school age children. Still, issues remain on such topics as optional ways to perform needs assessment, to monitor progress during an intervention, and, even, to specify goals for an affective education program.

#### Systemmatic Approach to Affective Education

A need for a systemmatic approach to affective education was recognized by James R. Barclay and his associates (e.g., Barclay, 1974a; 1974b; Stilwell,

in press; Stilwell & Santoro, 1975). In effort to develop further the affective education concept for the elementary schools they have worked on assessment of affective, social and academic needs, on preventions of problems resulting from these needs, and on remediation of fully acquired maladaptive behavioral patterns. Barclay (1974a) has undertaken a definition of affective education which bridges the humanistic-behavioristic gap. Indeed, these individuals argue that affective and cognitive education must interact in order for counselors, teachers, parents and children to survive in school and in community.

Barclay and his colleagues (Barclay, Barclay, Catterall, Santoro, Stilwell & Tapp, 1973) have suggested that affective education might appropriately include skill development in eight areas: self-competency, group interaction, self-control, verbal skills, physical-energy level skills, vocational awareness, cognitive-motivational, and attitude toward school. The lack of skill in any one or more of these areas defines student needs, suggests goal areas, and indicates possible strategies to gain needed skills. Indeed, the assessment, preventions, and remediations of deficits (needs) in these skill areas have been integrated into a system.

The development of systems models for affective education has advanced on simultaneous fronts. First, Barclay (1974b) has described how the system can support planning, decision-making, and assessment in a regional or on a district-wide basis. Second, Stilwell (in press) has developed a model for implementing an affective education program in a school, district or region. And, a learning development consultant team system for bringing about affective changes within a school or district has been prepared by Stilwell and Santoro (1975). Each of these

three models--planning/decision-making, implementation, and learning development consultant teams--bare a logical interdependence with each other.

#### Barclay Classroom Climate Inventory

Crucial for the success of these models is a valid and reliable needs assessment technique. For about 18 years Barclay (e.g., 1967a; 1967b; Barclay, Barclay & Stilwell, 1972) has been gathering data on the combined influences which make-up the environmental press of a classroom. Using these data he has developed a multitrait, multisource method for assessing self competencies, awareness of the working environment, preferred reinforcers, peer support, and teacher judgments which can be used with third through sixth graders. The Barclay Classroom Climate Inventory (BCCI) integrates teacher, peer, and self judgments, produces computerized narrative reports for both teacher and child, and suggests potential affective education skill deficits for remediation by learning development consultant teams. At this time nearly 35,000 children have been assessed with the BCCI in a variety of programs and sites in about 25 states. Thus, the BCCI as an assessment technique and a system provides a logical linkage among our models and suggests an affective education "bridge" for the humanists and behaviorists.

#### Interventions Based on the BCCI

Recently we have been using the BCCI and learning teams in selected Central Kentucky sites. The typical design in these programs was pre and post planned intervention assessments with the BCCI and frequent intra-interventions monitoring. The BCCI, as a major assessment technique, was augmented by direct observations, self-reported data, social problem Q-sorts, and BCCI System's Supplemental Assessment procedures. The learning development team, consisting of graduate students in counseling and school psychology, teachers, counselors, and/or principals,

collected the data, established intervention goals, implemented selected interventions, and evaluated the outcomes. The first three studies were conducted during Spring, 1973, in a Lexington area parochial school attended by students from the full range of the area's socioeconomic spectrum. The fourth study was completed during Spring, 1974, at a newly constructed, ungraded, open school in a rural, agricultural county. Each study will be briefly outlined. (The interventions may be cross-referenced to the BCCI's User Manual (Barclay et.al., 1973) in which 58 interventions are recommended for the eight affective education skill areas.) Later results from each study will be presented and discussed.

Study 1: Feedback through test analysis-teacher attention-parental support.

In a previous study (Church, 1972) we learned that feedback of the BCCI printouts had a strong and desirable effect upon less assertive girls and more disruptive boys. In this single classroom study we wanted to assess the effects of feedback to selected students, teacher praise, and parental support. Accordingly, in this third grade classroom of 21 boys and 12 girls the learning team identified 11 students (7 boys and 4 girls) whose BCCI printout suggested they had low self-competency and few peer nominations.

Feedback through test analysis. Each child so selected for special attention received feedback based on BCCI printout (Figure 1) in an individual session with the LDC team members. Wylie (1961) has suggested that a child with low self-concept might be highly susceptible to change by positive information of how others see him. Accordingly, the learning team, following the example of Church (1972), pointed out and discussed the positive aspects of each child's printout.

Teacher attention. An effort was made to increase the amount of attention given by the teacher to each of the 11 students. The teacher was given a checklist, as

1. LDC Team made up of Lonnie Davis, Judith Flaherty and Christina Igelmo.

a special set of cues, for recording her daily special attention for these students. We did not want new assignments created for these children, but we wanted the entire class to be aware of particular task accomplishments and subsequent reinforcements.

These three interventions were carried out during a six week period. The actual feedback of multisource data required about 30 minutes per child. The classroom teacher was asked to reinforce the selected children throughout the six week period. Parental support was enlisted in the second week of the project and implemented during the third through sixth weeks.

Parental support. The learning team invited the parents of the 11 students to participate in a special program. Parents of six children volunteered to support the team. These participating parents were asked to give special social reinforcement to their child in five areas for a period of two weeks. A checklist for the period was given to each parent. The five areas were: getting up in the morning and getting dressed, table manners, arrival home from school, school work, and going to bed. Only one child in this group did not earn positive marks in all five areas from his parents.

Study 2: Social-contact exercise-teacher attention--videofeedback. The BCCI printout for this fourth grade class indicated that seven of the 15 girls appeared to have unusually low levels of self-competency. In addition the teacher ratings revealed a pattern that was unusual: girls received more negative ratings than boys. For this classroom the learning team wanted to develop interventions which would avoid singling out specific students and possibly add to the problem of low self-competency. In this single classroom of 15 girls and 13 boys we wanted to assess the impacts of a social-contact exercise, teacher attention,

2. LDC Team consisted of Ann V. Harvey, Patricia P. Jones, and Rodger Marion.

and videofeedback. In the nine weeks available for this study the team employed three interventions which will be briefly described.

Social-contact exercise. The team expanded on the notion the "children who receive little recognition from their peers also pay little attention to other children" (Barclay, et. al. 1973, p. 152). They wanted to expand the class's ability to pay attention to others and thereby to encourage more recognition in return. Accordingly, the team developed "Happiness Booklets" for each child and the teacher in the classroom. The booklets were simply construction paper and blank sheets. At the beginning of each day everyone, including the teacher, drew a name. They traded this name slip for the owner's booklet. By noon each participant was to have reviewed all previous signed, positive, one-sentence entries and added their own compliment. No duplicate sentences were permitted. By the end of the school year each student and the teacher had a completed "Happiness Booklet" containing 28 positive statements. Thus, in this social-contact exercise each student and the teacher was able to read a large number of complimentary statements about every student in the class as well as themselves. An apparent value of this exercise is measured by the fact that all the owners, including the teacher, took their booklets home upon completion of the project.

Teacher attention. The BCCI data on teacher preference for boys over girls was substantiated by learning team interviews of the teacher and by direct observation. The team obtained teacher commitment for (1) a minimum of three positive comments for the 7 girls, (2) alternate by sex for each classroom recognition, (e.g., calling on, praising, special tasks etc.), and (3) physical contact with females students (e.g., patting back, stroking hair, etc.). A checklist for these three activities was prepared for the teacher, but the data



suggested that she was inconsistent in her commitment.

Videofeedback. To provide each child with an opportunity to display something he or she could do well to his peers and teacher the learning team created a "Videotrip". Each child was asked to describe the three activities which he or she could do well. The team chose the most visible activity for videotaping in a one-to-two minute segment. The actual videotaping took much longer than planned. Some segments such as AAU swimming, show horse training, and grass cutting were technical challenges for videotaping. Still, the team persevered and completed videotaping the entire class about two weeks before the end of the project. The tape was shown to the class and to the PTA. In the classroom the students were aware of peer's selected activity. The parents, on the other hand, were engrossed by their child's activity, including a father who had never seen his son cut grass!

The learning development team instituted the social-contact exercise (Happiness Booklets) and teacher attention in March, 1973. They also developed plans and collected the student activity preference at this time. The creation of the videotape (Videotrip) took about six weeks. In this classroom the impact of these three interventions was probably felt throughout the nine weeks of the study.

Study 3: Existential Group--Teacher Attention. In this study the learning team developed some existential exercises designed to improve selected students' self-competency. The team drew from a variety of materials (e.g., Hawley & Hawley, 1972; Lyons, 1971) and developed a series of exercises. The basic paradigm in these exercises was experience-identify-analyze-generalize. In addition to focusing on selected students, the team attempted to develop a new pattern of

3. Learning team included Jerome D. Bish, Ann Carneal, Robert Miller and Pearl Rutledge.

teacher attention in this fifth grade classroom of 17 girls and 15 boys. The interventions used in this six week study will be briefly described.

Existential Group. Ten students participated in this group. Five models (3 boys and 2 girls) were selected for their high sociometric status and their low levels of aggressiveness and dominance. Five target students (4 boys and 1 girl) were selected by their low self-competency scores on the BCCI. A LDC team member (PR) conducted three one-hour sessions over a three week period. During these sessions the students completed (1) "Singing Sam" in which they thought and told about a self-competency, (2) thumb wrestled, (3) a hand conversation, (4) hand mirroring and, (5) "Let's Cooperate". These exercises used the basic paradigm of experience feelings (which were probably new), identify those feelings, analyze what happened, and tell what the student learned. Throughout these sessions the models were used as facilitators for the low self-competency students.

Teacher attention. In order to structure teacher reinforcement for the selected low self-competency students the team provided the classroom teacher with a list of possible reinforcements and a reinforcement-cue-card on which she was to record the frequency of her reinforcements. The team was taking advantage of the behavioral frequency increase which accompanies self-reporting (Thoresen & Mahoney, 1974). Indeed, the data show that she actually did increase her reinforcers to both the selected students and the entire class.

The LDC team members spent much of their energy in monitoring both student progress and shifts in the teacher's pattern of reinforcement. These collected data were shared with the classroom teacher in an effort to gain her cooperation with the team.

Study 4: Social-Contact Exercise--Process Learning. The strong suggestion that affective and social variables mediate the quality and quantity of academic achievement (Averch, Carroll, Donaldson, Kiesling & Pincus, 1972) influenced the selection of interventions used in this study. The 28 third graders (23 boys and 5 girls) who made up this group had obtained on the California Achievement Tests a mean of 1.5 on the reading subtest and an overall 1.7 on the battery. These students made up one of the lowest reading groups in an open-concept, non-graded curricular program at a public school in a rural area. The BCCI printout showed that more than a quarter of these students rated themselves lower than their peer group had rated them. Accordingly the team selected a modification of the Happiness Book and the educational television series "Inside/Out" as their primary interventions. The team monitored student progress with the BCCI's Supplemental Assessment Procedures (Barclay 1974a).

Social-contact exercise. Staats (1973) has suggested that young children can learn self control and self-competency skills by observing others. The team selected "I like You My Friend" booklets as a vehicle for directing this peer observation and for improving communications within the classroom. In this modification of the Happiness Booklets, each member of the class was listed on two concentric wheels. At the beginning of the day the movable wheel was spun to select the writer for a peer's booklet. The writer kept the booklet for the day and recorded something they liked about the peer. At the end of the day, each writer read the comments about the selected peer. This intervention was maintained for ten consecutive school days.

4. Team included Barbara L. Jump and Patricia H. Pryor

Process learning. During the duration of this study the State-wide educational network provided schools with Inside/Out episodes. The series relies on student listening, valuing, and decision-making to help each child develop a personally effective life style (Harrelson & Christopher, 1973). For six weeks the students divided into six groups of four or five members and a teacher discussion leader viewed the weekly episodes and discussed the issues raised by the episode. In these meetings the teacher supported (reinforced) students for identifying, analyzing, and generalizing based on the episodes.

The program in this rural school was conducted over a 12 week period. The work with "I Like You My Friend" occurred during the beginning of this period and the use of Inside/Out extended throughout the final nine weeks of the study.

#### Data Analysis

Three statistical methods were employed: for the first three studies analysis of variance was completed on the gain scores. In this one-way analysis we made unconditional inferences about the absolute magnitudes of the gain scores. At best from this analysis using MULTIVARIANCE (Finn, 1974) we can draw some tentative conclusions from a comparison of the high versus low scores. Again in the first three studies, with the pretreatment scores as the predictor and the posttreatment scores as the criterion, aptitude X treatment interaction analysis (Cronbach & Snow, 1969) were performed on the appropriate measures. Gain scores from the fourth study were analyzed with the MULTIVARIANCE program. Since no control group data was available this analysis of the absolute gain score appears to be appropriate.

#### Limitations

In this series of exploratory studies, several important limitations can

influence the generalizability of the results. First, the cell size for these studies was small. The likelihood of single subject influence on the results was present. Second, we were unable to select randomly our school or classrooms and to assign randomly our treatments. Hence, the results should be limited to schools in which the climate (environmental press) is similar to the one selected for these studies (i.e., urban area, parochial, 1 to 29 teacher student ratio or rural, open concept, team teaching, with 1 to 30 as the teacher student ratio, etc.).

## RESULTS

For these exploratory studies we used three analyses: ANOVA, aptitude X treatment interaction (ATI), and gain scores. Throughout these analyses the desirable direction of change (e.g., a lower disruptive score or fewer negative Teacher Ratings) must be considered in the interpretation of the results.

### Analysis of Variance

The 42 scale scores were analyzed by sex. The results are summarized in Table 1. For the boys classroom (treatment) differences were obtained on seven variables. A pattern seemed to emerge such that the interventions used in Study 2 (Social-contact, teacher attention, and videofeedback) resulted in lower gain scores for five of the seven variables. The boys in this group reported as having lower outdoor and manual physical skill prowess, less skill in dealing with interpersonal relationships, and less effective in overall self-competencies. At the same time, these boys received fewer positive personal adjustment ratings from their teachers. Also the boys appeared to develop a less positive attitude toward school. On the other hand, the interventions used in Study 1 (existential group and teacher attention) seemed to increase the boys interests

in intellectual-scientific occupations and to increase their interest in typically feminine occupations. For the girls no discernable pattern emerged favoring any set of interventions. Study 1 (Feedback of tests results, teacher attention, and parental support) appears to have had a strong effect on raising their total group nominations. In Study 2 the changes seems to be desirable--fewer negative teacher ratings in personal adjustment and overall adjustment, and to become less introverted-divergent. The girls participating in Study 3 appeared to rate themselves less socially competent, less interested in clerical occupations. These girls, also appeared to lose peer support in this classroom.

#### Aptitude X Treatment Interactions

In an earlier study (Stilwell, Brown & Barclay, 1973) we used the aptitude X treatment interaction (ATI) model. Essentially the traditional analyses, ANOVA or COVAR, for determining the effectiveness of given interventions have been seriously questioned by Thoresen (1969). He argues in part that we may be missing some important results when we look at average scores and not at the individual differences in response to the interventions. Cronbach and Snow (1969) have offered a rationale for the use of ATI in studies such as the ones reported in this paper. The results from this type of analysis suggest more effective interventions for different levels of BCCI scale scores.

Aptitude X Treatment Interactions (ATI) were evaluated by comparing regression slopes obtained for pre--and posttreatment scale score pairs with F tests used for homogeneity of regression. All reported interactions were disordinal such that regression lines intersected within the range of the BCCI variables considered. A total of 84 regression tests resulted in nine

significant ATI's for the boys and ten such interactions for the girls, using the .05 level of significance. The results are summarized for boys in Table 2 and for girls in Table 3. Generally, these findings imply that differential assignment of students on opposite sides of the intersection to alternate interventions is appropriate to maximize behavior change.

From these 19 significant interactions several patterns emerged that showed differential treatment effects by sex and by classroom. Although the overall patterns show differential changes in self-competency and group interaction areas for both sexes, the girls also appeared to make some changes in their teachers' judgments and in their preference for reinforcers.

For this discussion we will abbreviate our combination of classroom interventions by simply referring to group 1, 2 or 3. Further we will present results for self, group, teacher judgments, temperments, and reinforcers, in that order. First we will discuss the combined treatment effects for boys and girls in the self competency area. In the self-realistic masculine scales we found that group 1 interventions raised the already high scores of boys, that group 2 combination was more effective for low and medium scoring children of both sexes, and that group 3 strategies were more appropriate for high scoring girls on this dimension. For the girls' self-social conventional scores group 1 strategies were more effective in raising low and middle scoring children than the other two combinations. However, the group 2 strategies appeared to be best for high scoring girls in this area. In the overall self-competency scores the second group of interventions had an extremely strong effect upon low and middle scoring boys. The high scoring boys were effected by the group 3 strategies. Thus, it would appear that the combination of social-contact, teacher attention and videofeedback had the strongest effect upon

low and middle scoring boys and girls in these selected self-competency areas.

In the group interaction skill area boys appeared to be effected in all six BCCI scale areas while the girls were differentially influenced only in three areas. In the group artistic-intellectual scale we found that the group 2 interventions were more effective for low and middle scoring boys than the other two sets of interventions. Also for the boys, the group 3 interventions were more appropriate for the higher scoring individuals. In the group realistic masculine skill area the disordinal interactions showed the second group of interventions were most effective for all boys, (low, medium and high scoring) and for high scoring girls. The group 3 strategies appeared to be more effective for raising low and middle scoring girls' peer nominations in this area. In the group nominations for social-conventional skill areas we found group 1 strategies were best for all girls and group 2 strategies were best for all boys. For group enterprising (leadership) scale scores group 2 interventions were most effective for all boys and more effective for low and middle scoring girls. The strategies in group 1 appeared to have the greatest effect upon high scoring girls. A reduction of group disruptive nominations is highly desirable; the group 3 strategies seem to be the more effective for all but the highest scoring boys. For these high scoring boys we have a toss-up between group 1 and group 2 strategies which are equally effective. For the overall group nomination scale group 2 strategies were the most effective. Thus, for the boys the group 2 strategies again appeared to have a particularly consistent and strong effect. For the girls, the pattern seemed to favor the group 1 (feedback of test results, teacher attention and parental strategies support).



Only the teacher rating of high effort was differentially influenced by these groups of interventions. For the girls neither of the other two sets of interventions were able to bring about as great changes as did the group 1 strategies.

The data on the students' temperaments show that group 1 strategies facilitated girls becoming more introverted-convergent than the other two sets of interventions. An alternative interpretation is that group 3 strategies were more influential in reducing the girls' introversions-convergency (they became more outgoing). This particular result focuses upon the choice an educator has when they act upon ATI results. For boys the group 2 strategies were more effective in reducing the extroversion-divergency of high scoring children. The group 3 strategies (existential group and teacher attention) were instrumental in further lowering the scores of already low scoring boys.

Girls' patterns of reinforcers appeared to be changed by these interventions. The group 1 strategies were most effective in raising esthetic and peer group male reinforcers. These strategies and/or the group 2 strategies were far more influential in raising intellectual task order reinforcers than the group 3 strategies which were most effective in reducing low and middle scoring girls preferences in this area.

#### Gain Score

In the fourth study we did not have a control group. Accordingly, we must make some very tentative unconditional inferences about the gain scores. Again the MULTIVARIANCE program (Finn, 1974) was employed for this analysis. Fourteen scale scores revealed significant gains (Table 4). This particular combination of interventions (social-contact exercise and process learning) appeared to have a depressing, effect on most of the 14 scales for the 23 boys'

data. (We were unable to use the girls data because of missing pre or post assessments.) That is, boys appeared to become less competent in intellectual areas, less interested in social, clerical, high status and, in general, occupations, and less excited about self-stimulating intellectual, family, and peer group male reinforcers. The exciting and desirable changes appear to be an increased artistic interest, more positive teacher adjectives, and fewer negative teacher ratings. Also the boys appeared to become less introverted-divergent.

#### DISCUSSION /

The major purpose of this paper was to report on several innovations in the promotions of affective skill development. The three studies completed in the urban area parochial school were analyzed together. The rural school study was separately discussed. From the ANOVA and ATI analyses we appear to obtain two patterns of intervention effectiveness. Our interpretation of the ANOVA's must be tentative for the 14 significant differences in gain scores. Generally for boys and girls the comparisons of the absolute gains show that group 1 and 3 strategies were about equally effective, but that group 2 strategies lowered the selected scale scores. A contrasting and more meaningful pattern of results were obtained from the ATI's. These analyses revealed important changes in self-competency and group nominations in particular. Further, the "Happiness Book" and "Videotrip" appeared most frequently to have an effect upon selected boys and girls in these two skill areas. It would appear that classroom teachers could adopt the Happiness Book model as an inexpensive way to bring about some important changes. In addition the ATI's show a greater variety of changes occurring in the support systems available to the individual students (i.e., peer nominations and teacher judgments). Probably the most salient feature of the fourth study is that discussing the BCCI printouts with

the responsible teacher effectively brings about changes in how they perceive their students.

These pilot studies raised a host of additional questions that should be answered by either intensive design or multiple treatment, multiple measure studies. For example:

1. What is the optional sequence for presenting the BCCI printouts to children, teachers, and parents. That is, should we present the "bad news" first and then the "good news" or visa versa?
2. How would providing self-management training (e.g., Thoresen & Mahoney, 1974) effect low and middle self-competency level children? Which alternative strategies are more appropriate for these boys and girls?
3. Can we relate these effective interventions to improvements in specific academic areas (i.e., reading, arithmetic)?
4. To what degree does the classroom climate of a structured, traditional school differ from an open, unstructured educational complex? How are strategy selections influenced by these differences?

These exploratory studies of affective education skill development relate to models for planning/evaluating (Barclay, 1974b) and implementing (Stilwell, in press) an affective education program with learning teams as crucial actors in the details of classroom management (Stilwell & Santoro, 1975). Also each of the interventions used in these studies will be integrated into the skill area X recommended matrix found in the BCCI User's Manual (Barclay et.al., 1973; Barclay 1974a). Within these systems we are able to perform needs assessment, to define program objectives based on this assessment, to implement changes within the program, to monitor the outcomes, and to maintain learning team skills. It goes without saying that we must intensify our search for the optimal combinations of needs, goals, and interventions in order to help children as early as possible prepare for the changing society once they leave school.

GIRL STUDENT NO 4 TEACHER 44 DATE 1261 DCCI CODE E-2

## 1. OVERALL SUMMARY BASED ON FACTOR SCORES

ACHIEVEMENT-MOTIVATION OUTSTANDING, THRUST FOR ACHIEVEMENT, VIEWED AS SUPERIOR IN PERSISTENCE,  
CONTROL-STABILITY DEMONSTRATES A HIGH DEGREE OF IMPULSIVE, UNPREDICTABLE AND INCONSISTENT BEHAVIOR.  
INTERVERSION-SECLUSION A VERY HIGH RATE OF RETICENT, SHY, AND NON-VERBAL BEHAVIOR.  
ENERGY-ACTIVITY NORMALLY ADEQUATE LEVEL OF ENERGY AND PERSISTENCE IN COMPETITIVE ACTIVITIES.  
SOCIALITY-AFFILIATION OUTSTANDING ABILITY TO RELATE TO OTHER PEOPLE AND INTERACT WITH THEM.  
ENTERPRISING-DOMINANCE TENDS TO BE A FOLLOWER AND SOMEWHAT NON-ASSERTIVE.

## 2. SPECIAL CHARACTERISTICS

## A. ESTIMATE OF SELF-REPORT

SELF-COMPETENCY SKILLS OVERALL VERY LOW ESTIMATE OF SELF SKILLS. LOW ARTISTIC-INTELLECTUAL SKILLS.  
LOW OUTDOOR-MECHANICAL SKILLS. HIGH SOCIAL-AFFILIATIVE SKILLS. LOW ENTERPRISING-DOMINANCE SKILLS.

## VOCATIONAL AWARENESS

OVERALL CHOOSES GREAT NUMBER OF VOCATIONAL INTERESTS. THIS MAY REFLECT EITHER WIDE  
VARIETY OF INTERESTS OR FAILURE TO MAKE ADEQUATE DISTINCTIONS.  
LOW OUTDOOR-MECHANICAL INTERESTS. HIGH CLERICAL INTERESTS. HIGH BUSINESS INTERESTS.

## REINFORCERS

HIGH INTEREST IN INDIVIDUALISTIC SELF-ORIENTED ACTIVITIES.  
LOW INTEREST IN ESTHETIC, ARTISTIC AND CREATIVE ACTIVITIES.  
LOW INTEREST IN MALE PEER GROUP ACTIVITIES.

## ATTITUDE TOWARDS SCHOOL MANIFESTS A USUALLY FAVORABLE ATTITUDE TOWARDS SCHOOL.

## B. PEER NOMINATIONS

PERCEIVED OVERALL BY PEERS AS POSSESSING A VERY HIGH DEGREE OF PERSONAL AND SOCIAL LEADERSHIP SKILLS.  
HIGH ARTISTIC AND INTELLECTUAL SKILLS. HIGH OUTDOOR-MECHANICAL SKILLS.  
HIGH SOCIAL-AFFILIATIVE SKILLS. HIGH ENTERPRISING AND DOMINANCE SKILLS.

## C. TEACHER EXPECTATIONS

BEHAVIOR APPEARS GENERALLY TO BE VIEWED AS CONSISTENT, PREDICTABLE AND STABLE.  
MANIFESTS CONSISTENTLY GOOD PERSONAL ADJUSTMENT.  
MANIFESTS CONSISTENTLY GOOD SOCIAL ADJUSTMENT.  
MANIFESTS CONSISTENTLY GOOD EFFORT AND MOTIVATION.

3. SUMMARY: TENDS TO UNDERESTIMATE PERSONAL AND SOCIAL SKILLS BY COMPARISON WITH THE EVALUATION OF THE PEER GROUP. OBTAINS  
A GOOD DEAL OF SUPPORT FROM SOME MEMBERS OF THE PEER GROUP. TENDS TO RELATE TO EXTERNAL REINFORCEMENT TO MOTIVATE BEHAVIOR  
AND IS GENERALLY FLEXIBLE IN ABILITY TO COPE WITH CHANGING CIRCUMSTANCES.

## 4. SUSPECTED PROBLEMS: LOW SELF-COMPETENCY ESTIMATE.

SELF-RATED SCALES	GROUP	NOMINATION	SCALES	VOCATIONAL	PREFERENCE	SCALES	TEACHER	ADJECTIVE	SCALES	BEHAVIORAL	SCALES	FACTOR	SCORES								
SAI	1	GAI	13	GR	5	INT	4	ENTR	8	TR7	29	MEL	0	SSR	6	CNV	12	1	60	IV	54
SRM	0	GRM	11	GD	1	REAL	0	CONT	9	TR8	0	CHL	0	ESR	3	PRM	11	11	44	V	96
SSC	5	GSC	24	SOC	7	ST	4	VTOT	41			PHL	9	ITR	5	PRF	10	111	72	VI	71
SE	2	GE	21	GTOT	69	CONV	7					SAN	10	FAR	13	CCI	10				

NOTE: FOR GIRLS ONLY. INTERPRET RAW FACTOR SCORE VI AS RAW FACTOR SCORE II, AND RAW FACTOR SCORE II AS VI.

Table 1. Univariate F for Selected Gain Scores by Sex Across Three Classrooms

Sex	Variable	C L A S S R O O M			F	P
		1	2	3		
Males	Self Realistic-Masculine	0.190	-1.000	0.933	4.0256	.0247
	Self Social Conventional	0.095	-1.333	0.200	4.5529	.0159
	Self Total	-0.047	-3.750	1.133	3.7005	.0326
	Vocational Masculine/Feminine Interests	0.571	0.667	-0.200	3.6086	.0352
	Teacher Rating of High Personal Adjustment	1.190	-2.417	0.400	3.8199	.0294
	Intellectual Task Order Reinforcers	-1.619	-1.500	1.533	7.3937	.0017
	Attitude Toward School	-0.095	-2.833	0.800	5.4599	.0076
Females	Self Social Conventional	0.750	0.733	0.235	11.1257	.0019
	Vocational Realistic Interests	-0.167	1.267	0.176	4.9650	.0315
	Vocational Conventional Interests	0.000	0.133	-0.824	4.7523	.0351
	Teacher Rating of Low Personal Adjustment	-0.250	-2.000	-0.588	3.5436	.0381
	Total Teacher Negative	-0.583	-4.000	-1.529	12.2640	.0012
	Introverted - Divergent	-1.000	-2.000	-0.59	5.0084	.0114
	Group Total	5.500	2.400	-2.294	3.8514	.0294

Table 2. Summary of Simple Pre and Post Intervention Regression  
Analyses and Significant Disordinal Interactions for Males

BCCI Scales	MANAGEMENT INTERVENTIONS							
	SD	Feedback a	Feedback b	Social Contact a	Social Contact b	Existential a	Existential b	F <sub>1</sub>
Self Realistic Masculine	1.459	.81	.86	.58	5.08	.44	2.73	6.0712
Self Total	3.591	.73	3.90	-1.80	42.41	.74	4.82	9.1974
Group Artistic Intellectual	4.753	.38	1.19	-.16	4.69	1.01	.54	9.6777
Group Realistic Masculine	7.485	.85	.89	.12	7.09	.84	1.08	18.4994
Group Social Conventional	7.102	.41	2.76	-.17	6.70	.79	1.43	12.3600
Group Enterprising	8.978	.64	1.37	.29	5.18	1.03	.52	3.7779
Group Disruptive	8.344	.76	.90	.81	.91	1.10	-.68	5.2507
Group Total	22.890	.66	4.53	.12	26.85	1.06	-.23	18.9952
Extroverted Divergent	3.170	.69	.76	.16	.01	.85	-.04	3.6006

1. df 2,42 F = 3.23 p < .05; F = 5.18 p < .01

Table 3. Summary of Simple Pre and Post Intervention Regression  
Analyses and Significant Disordinal Interactions for Females

BCCI Scales	SD	MANAGEMENT INTERVENTIONS								F <sub>1</sub>
		Feedback		Social Contact		Existential				
		a	b	a	b	a	b			
Self Realistic Masculine	1.191	.45	1.15	-.19	3.09	.85	.29	3.9593		
Self Social Conventional	0.963	.12	5.52	1.18	.02	.52	2.46	4.8643		
Group Realistic Masculine	1.366	.36	.55	1.12	.33	.09	.87	6.6535		
Group Social Conventional	3.613	.25	5.40	.97	1.29	1.09	-.77	3.1916		
Group Enterprising	2.165	1.83	-.14	.28	3.03	.20	1.04	8.6298		
High Effort-Motivation	2.790	-.24	9.72	.62	2.94	.71	2.78	3.7680		
Introverted Convergent	3.236	.15	9.95	.77	2.12	.89	.50	7.7764		
Esthetic Reinforcers	3.058	.06	15.51	.69	3.96	.63	4.38	4.3076		
Intellectual Task-Oriented	2.646	.29	9.29	.34	8.12	1.07	-1.93	4.5455		
Peer Reinforcers Male	5.131	.10	26.45	.98	1.59	.85	3.23	3.4247		

1. df 2,38 F = 3.23 p < .05; F = 5.18 p < .01

Table 4. Univariate F for Selected Gain Scores by Sex Within One Classroom<sup>1</sup>

Classroom	Sex	Variable	Gain Score	F	P
Study 4	Male	Self Artistic-Intellectual	-0.652	4.9799	.0362
		Vocational Social Interests	-1.391	4.5882	.0436
		Vocation Conventional Interests	-0.913	6.2192	.0207
		Vocational Artistic Interests	2.217	44.4960	.0001
		Vocational Status Interests	-0.739	4.7306	.0407
		Vocational Total	-4.351	4.8703	.0381
		Total Teacher Positive Adj.	2.652	4.6031	.0433
		Total Teacher Negative Adj.	-4.913	7.1601	.0139
		Introverted Divergent	-1.870	10.0143	.0045
		Self-Stimulating Reinforcers	-2.957	20.0173	.0002
		Esthetic Reinforcers	-2.783	15.4301	.0008
		Intellectual Task-Oriented Reinforcers	-2.087	10.7072	.0035
		Familial Reinforcers	-1.696	5.2170	.0324
		Peer Male Reinforcers	-3.087	6.3460	.0196

Note 1: Data for Study 4 included only 23 boys. Only three girls completed pre and post assessment.



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